IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant	: Ullas Gargi	Art Unit	: 2168
Serial No.	: 10/631,369	Examiner	: Oni, Olubusola
Filed	: July 31, 2003	Confirmation No.:	2127
Title	: ORGANIZING A COLLECTION OF OBJECTS		

Commissioner for Patents
P.O. Box 1450
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PETITION UNDER 37 CFR 1.181

Applicants hereby petition the Director to set aside the Examiner's Election Requirement dated May 22, 2007, because: (I) it would not be a serious burden for the Examiner to continue examining the application on the merits without the Election Requirement; (II) the Examiner is not authorized under the Rules to issue the Election Requirement; and (III) because the Examiner has failed to establish a *prima facie* case for requiring an election of the claims. The pending claims are reproduced in the attached Claims Appendix.

I. IT WOULD NOT BE A SERIOUS BURDEN FOR THE EXAMINER TO CONTINUE EXAMINING THE APPLICATION ON THE MERITS

MPEP § 803.01 provides that (emphasis added):

> If the search and examination of an entire application can be made without serious burden, the examiner must examine it on the merits, even though it includes claims to independent or distinct inventions.

The Examiner already has searched and examined the entire application on the merits before issuing the above-mentioned Election Requirement. The Examiner's Election Requirement therefore is improper at the present stage of prosecution because it would not be

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a serious burden for the Examiner to continue examining the application on the merits without the Election Requirement.

A summary of the prosecution history of the application is set forth below.

7/31/03	The application was filed with claims 1-51, where claims 1, 22, 23, 32, 33, 45, and 51 were independent claims, claims 2-21 depended from claim 1, claims 24-31 depended from claim 23, claims 34-44 depended from claim 33, and claims 46-50 depended from claim 45.
3/9/06	The Examiner mailed the first Office action on the merits, rejecting claims 1-51 under 35 U.S.C. § 102(e) over Platt (U.S. 2003/0009469).
5/31/06	Applicants mailed an Amendment in which: claims 1-22 were amended; claims 23-32 were left in their original form; claims 33-36 were amended; and claims 37-50 were left in their original form; and claim 51 was amended.
8/23/06	The Examiner mailed a final Office action in which she maintained the same rejection of claims 1-51 under 35 U.S.C. § 102(e) over Platt and issued a new ground of region of claims 1-32 and 51 under 35 U.S.C. § 101.
1/17/07	Applicants filed an Appeal Brief.
5/22/07	The Examiner re-opened prosecution by issuing the election requirement that is the subject of the instant Petition.

The Examiner already has fully and completely searched and examined the subject matter of all of the pending claims on the merits in the first and final Office actions dated 3/9/06 and 8/23/06. The scope of the subject matter recited in the pending claims is the same as the subject matter scope of the claims that already have been fully and completely examined on the merits. Therefore, it would not be a serious burden for the Examiner to continue examining the application on the merits, regardless of whether the application includes claims that are independent and distinct.

For at least this reason, Applicants request that the Director set aside the Election Requirement dated May 22, 2007.

II. THE EXAMINER IS NOT AUTHORIZED TO ISSUE THE ELECTION REQUIREMENT

The Examiner is not authorized to issue the election requirement data May 22, 2007, because: (A) the Rules do not permit the Examiner to issue an election requirement where there is no generic claim; (B) the Rules do not permit the Examiner to issue an election requirement at the present stage of prosecution of the instant application; and (C) the Rules do not permit the Examiner to re-open prosecution of an application under appeal for the sole purpose of issuing an election requirement.

(A) The Rules Do Not Permit The Examiner To Issue An Election Requirement Where There Is No Generic Claim

The election requirement is traversed because the Examiner is not authorized to require the proposed election of "species". In particular, 37 CFR 1.146, which authorizes the Examiner to require an election of species, applies only to "an application containing a generic claim to a generic invention (genus) and claims to more than one patentably distinct species embraced thereby." The instant application, however, currently does not contain a generic claim that embraces all the identified "Species" I, II, and III. Without such a generic claim, the "Species" I, II, and III do not constitute species to which the claims properly can be restricted under 37 CFR 1.146 (see MPEP § 806.04).

For at least this additional reason, Applicants request that the Director set aside the Election Requirement dated May 22, 2007.

(B) The Rules Do Not Permit The Examiner To Issue An Election Requirement At The Present Stage Of Prosecution

As explained above in § I, the Examiner already has fully and completely searched and examined the subject matter of all of the pending claims on the merits in the first and final Office actions dated 3/9/06 and 8/23/06. The scope of the subject matter recited in the pending claims is the same as the subject matter scope of the claims that already have been fully and completely examined on the merits. Accordingly, under these circumstances the Rules do not permit the Examiner to issue the instant Election Requirement.

It is noted that 37 CFR § 1.142(a) only indicates that a requirement for restriction "may be made at any time before final action." This provision, however, does not apply to

the instant case because the Election Requirement in Examiner's action dated May 22, 2007, was made after the final action dated August 23, 2006.

For at least this additional reason, Applicants request that the Director set aside the Election Requirement dated May 22, 2007.

(C) The Rules Do Not Permit The Examiner To Re-Open Prosecution Of An Application Under Appeal For The Sole Purpose Of Issuing An Election Requirement

Under MPEP § 1207.04, "The examiner may, with approval from the supervisory patent examiner, reopen prosecution to enter a new ground of rejection after appellant's brief or reply brief has been filed."

In the instant case, the Examiner did not re-open prosecution to enter a new ground of rejection after the Appeal Brief was filed on January 17, 2007. Instead, the Examiner re-opened prosecution for the sole purpose of issuing the Election Requirement dated May 22, 2007. The Rules do not permit the Examiner to re-open prosecution of the instant application after the Appeal Brief was filed for the sole purpose of issuing an election requirement.

For at least this additional reason, Applicants request that the Director set aside the Election Requirement dated May 22, 2007.

III. THE EXAMINER HAS FAILED TO ESTABLISH A *PRIMA FACIE* CASE FOR REQUIRING THE PROPOSED ELECTION OF CLAIMS

In the Office action dated May 22, 2007, the Examiner has required an election between Species I (method claims 1-21 and system claim 22), Species II (method claims 23-31 and system claim 32), and Species III (method claims 33-50 and system claim 51).

A. Species I and II

The Examiner has asserted that (emphasis added):

> Inventions I and II are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for

> patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because invention in group I has separate utility such as organizing a collection of object. The subcombination has separate utility such as segmentation engine and naming engine.

Contrary to the Examiner's assertion, "Species" I is not related to "Species" II as combination and subcombination. For example, claim 1 of "Species" I recites

> Claim 1 (previously presented): A method of organizing a collection of objects arranged in a sequence ordered in accordance with a selected dimension of context-related metadata respectively associated with the objects, comprising:
>
> classifying the objects in the sequence to generate a series of object clusters, wherein the classifying comprises sequentially processing each of the objects as a respective candidate for segmentation into a respective current one of the object clusters in the series and, for each of the candidate objects,
>
> determining a candidate object interval separating the candidate object from an adjacent object in the sequence already segmented into the current object cluster, the candidate object interval being measured in the selected dimension of the context-related metadata,
>
> comparing the candidate object interval to a weighted measure of cluster extent for the current object cluster, the measure of cluster extent corresponding to a current distance spanned by all the objects in the current object cluster measured in the selected dimension of the context-related metadata, and
>
> comparing the candidate object interval to a weighted measure of object density for the current object cluster, the measure of object density corresponding to a measure of distribution of distances separating adjacent ones of the objects in the current object cluster measured in the selected dimension of the context-related metadata.

Claim 23 of "Species" II recites:

> Claim 23 (original): A method of organizing a collection of objects, comprising:
>
> segmenting objects from the collection into clusters;

> extracting context-related meta data associated with the objects and parsable into multiple levels of a name hierarchy; and
>
> assigning names to clusters based on the extracted context-related meta data corresponding to a level of the name hierarchy selected to distinguish segmented clusters from one another.

Accordingly, "Species" I is not a combination of which "Species" II is a part (i.e., "Species" I and "Species" II are not related as combination and subcombination). Indeed, as acknowledged by the Examiner, "the combination as claimed does not require the particulars of the subcombination as claimed" (see page 4, lines 2-3, of the Office action). For example, claim 1 does not require any of the "extracting" and "assigning" elements of claim 23, and claim 23 does not require any of the "classifying", "determining", and "comparing" elements of claim 1.

For at least these reasons, the Examiner's asserted reasons for requiring an election between "Species" I and "Species" II do not support the Election Requirement and, therefore, the Election Requirement should be set aside.

B. Species I and III

The Examiner has asserted that (emphasis added):

> Inventions I and III are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § a06.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because invention in group I has separate utility such as organizing a collection of object. The subcombination has separate utility such as a user interface engine to perform operations.

Contrary to the Examiner's assertion, "Species" I is not related to "Species" III as combination and subcombination. For example, claim 1 of "Species" I recites

> Claim 1 (previously presented): A method of organizing a collection of objects arranged in a sequence

ordered in accordance with a selected dimension of context-related metadata respectively associated with the objects, comprising:

classifying the objects in the sequence to generate a series of object clusters, wherein the classifying comprises sequentially processing each of the objects as a respective candidate for segmentation into a respective current one of the object clusters in the series and, for each of the candidate objects,

determining a candidate object interval separating the candidate object from an adjacent object in the sequence already segmented into the current object cluster, the candidate object interval being measured in the selected dimension of the context-related metadata,

comparing the candidate object interval to a weighted measure of cluster extent for the current object cluster, the measure of cluster extent corresponding to a current distance spanned by all the objects in the current object cluster measured in the selected dimension of the context-related metadata, and

comparing the candidate object interval to a weighted measure of object density for the current object cluster, the measure of object density corresponding to a measure of distribution of distances separating adjacent ones of the objects in the current object cluster measured in the selected dimension of the context-related metadata.

Claim 33 of "Species" III recites:

Claim 33 (previously presented): A method of organizing a collection of objects, comprising:

accessing a sequence of objects segmented into clusters each including multiple constituent objects arranged in a respective sequence in accordance with context-related meta data associated with the objects;

selecting for each object cluster at least two constituent objects representative of beginning and ending instances in the corresponding object sequence; and

in a user interface, graphically presenting the selected representative objects of each cluster without graphically presenting representations of unselected ones of the constituent objects of the clusters.

Accordingly, "Species" I is not a combination of which "Species" III is a part (i.e., "Species" I and "Species" III are not related as combination and subcombination). Indeed, as

acknowledged by the Examiner, "the combination as claimed does not require the particulars of the subcombination as claimed" (see page 4, last two lines of the Office action). For example, claim 1 does not require any of the "accessing", "selecting", "presenting" elements of claim 33, and claim 33 does not require any of the "classifying", "determining" and "comparing" elements of claim 1.

For at least these reasons, the Examiner's asserted reasons for requiring an election between "Species" I and "Species" III do not support the Election Requirement and, therefore, the Election Requirement should be set aside.

C. Species II and III

The Examiner has asserted that (emphasis added):

> Inventions II and III are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because invention in group II has separate utility such as segmentation engine and naming engine. The subcombination has separate utility such as a user interface engine to perform operations.

Contrary to the Examiner's assertion, "Species" II is not related to "Species" III as combination and subcombination. For example, claim 23 of "Species" II recites

> Claim 23 (original): A method of organizing a collection of objects, comprising:
>
> segmenting objects from the collection into clusters;
>
> extracting context-related meta data associated with the objects and parsable into multiple levels of a name hierarchy; and
>
> assigning names to clusters based on the extracted context-related meta data corresponding to a level of the name hierarchy selected to distinguish segmented clusters from one another.

Claim 33 of "Species" III recites:

> Claim 33 (previously presented): A method of organizing a collection of objects, comprising:
>
> accessing a sequence of objects segmented into clusters each including multiple constituent objects arranged in a respective sequence in accordance with context-related meta data associated with the objects;
>
> selecting for each object cluster at least two constituent objects representative of beginning and ending instances in the corresponding object sequence; and
>
> in a user interface, graphically presenting the selected representative objects of each cluster without graphically presenting representations of unselected ones of the constituent objects of the clusters.

Accordingly, "Species" II is not a combination of which "Species" III is a part (i.e., "Species" II and "Species" III are not related as combination and subcombination). Indeed, as acknowledged by the Examiner, "the combination as claimed does not require the particulars of the subcombination as claimed" (see page 5, lines 16-17, of the Office action). For example, claim 23 does not require any of the "accessing", "selecting", "presenting" elements of claim 33, and claim 33 does not require any of the "segmenting", "extracting" and "assigning" elements of claim 23.

For at least these reasons, the Examiner's asserted reasons for requiring an election between "Species" II and "Species" III do not support the Election Requirement and, therefore, the Election Requirement should be set aside.

III. CONCLUSION

For at least the reasons explained above, Applicants request that the Director set aside the Examiner's Election Requirement dated May 22, 2007.

Charge any excess fees or apply any credits to Deposit Account No. 08-2025.

Respectfully submitted,

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CLAIMS APPENDIX

The claims pending in Application Serial No. 10/631,369 are reproduced in the following Listing of Claims:

Listing of Claims:

Claim 1 (previously presented): A method of organizing a collection of objects arranged in a sequence ordered in accordance with a selected dimension of context-related metadata respectively associated with the objects, comprising:

classifying the objects in the sequence to generate a series of object clusters, wherein the classifying comprises sequentially processing each of the objects as a respective candidate for segmentation into a respective current one of the object clusters in the series and, for each of the candidate objects,

determining a candidate object interval separating the candidate object from an adjacent object in the sequence already segmented into the current object cluster, the candidate object interval being measured in the selected dimension of the context-related metadata,

comparing the candidate object interval to a weighted measure of cluster extent for the current object cluster, the measure of cluster extent corresponding to a current distance spanned by all the objects in the current object cluster measured in the selected dimension of the context-related metadata, and

comparing the candidate object interval to a weighted measure of object density for the current object cluster, the measure of object density corresponding to a measure of distribution of distances separating adjacent ones of the objects in the current object cluster measured in the selected dimension of the context-related metadata.

Claim 2 (previously presented): The method of claim 1, wherein the measure of cluster extent for each current object cluster corresponds to a temporal distance spanned by recorded generation times associated with all objects in the current object cluster.

Claim 3 (previously presented): The method of claim 1, wherein the measure of cluster extent for each current object cluster corresponds to a spatial distance spanned by recorded generation locations associated with all objects in the current object cluster.

Claim 4 (previously presented): The method of claim 1, wherein the measure of object density for each current object cluster corresponds to an average temporal distance separating adjacent objects in the current object cluster.

Claim 5 (previously presented): The method of claim 1, wherein the measure of object density for each current object cluster corresponds to an average spatial distance separating adjacent objects in the current object cluster.

Claim 6 (previously presented): The method of claim 1, wherein the classifying comprises merging consecutive ones of the candidate objects into a current one of the object clusters until the candidate object interval determined for a current one of the candidate objects exceeds the weighted measure of cluster extent for the current cluster, at which point a successive one of the object clusters in the series is initiated with the current candidate object.

Claim 7 (previously presented): The method of claim 1, wherein the classifying comprises merging consecutive ones of the candidate objects into a current one of the object clusters until the candidate object interval determined for a current one of the candidate objects exceeds the weighted measure of object density for the current object cluster, at which point a successive one of the object clusters in the series is initiated with the current candidate object.

Claim 8 (previously presented): The method of claim 1, wherein the processing comprises determining the weighted measures of cluster extent by applying to the measures of cluster extent respective weights that decrease with increasing sizes of the respective object clusters.

Claim 9 (previously presented): The method of claim 1, wherein the processing comprises determining the weighted measures of cluster extent by applying to the measures of cluster extent respective weights that decrease with increasing sizes of the respective object clusters.

Claim 10 (previously presented): The method of claim 1, further comprising customizing at least one of the weights applied to the measures of cluster extent based on an analysis of objects in the corresponding object cluster.

Claim 11 (previously presented): The method of claim 10, wherein the customizing comprises scaling at least one of the weights applied to the measures of cluster extent based on a fractal dimension estimate of recorded time generation meta data associated with the objects in the collection.

Claim 12 (previously presented): The method of claim 1, further comprising customizing at least one of the weights applied to the measures of cluster object density based on an analysis of objects in the corresponding object cluster.

Claim 13 (previously presented): The method of claim 12, wherein the customizing comprises scaling at least one of the weights applied to the measures of cluster extent based on a fractal dimension estimate of recorded time generation meta data associated with the objects in the collection.

Claim 14 (previously presented): The method of claim 1, wherein the processing further comprises comparing the object density of a candidate object cluster consisting of the current object cluster and the candidate object with the weighted measure of object density for the current object cluster.

Claim 15 (previously presented): The method of claim 14, wherein the measure of object density for each current object cluster corresponds to an average temporal distance separating adjacent objects in the current object cluster.

Claim 16 (previously presented): The method of claim 14, wherein the measure of object density for each current object cluster corresponds to an average spatial distance separating adjacent objects in the current object cluster.

Claim 17 (previously presented): The method of claim 14, wherein the measure of object density for each object cluster corresponds to a moving average distance separating adjacent objects in the current object cluster.

Claim 18 (previously presented): The method of claim 14, wherein the processing comprises determining the weighted measures of cluster extent by applying to the measures of cluster extent respective weights that decrease with increasing sizes of the respective object clusters.

Claim 19 (previously presented): The method of claim 1, wherein the processing comprises processing each of the candidate objects sequentially beginning at a first end of the object sequence.

Claim 20 (previously presented): The method of claim 19, wherein the processing further comprises processing each of the candidate objects sequentially beginning at a second end of the object sequence opposite the first end.

Claim 21 (previously presented): The method of claim 1, wherein the sequence to be segmented includes objects of the following types: text, audio, graphics, still images, video and business events.

Claim 22 (previously presented): A system of organizing a collection of objects arranged in a sequence ordered in accordance with a selected dimension of context-related metadata respectively associated with the objects, comprising:

a segmentation engine operable to classify the objects in the sequence to generate a series of object clusters, wherein the segmentation engine is operable to sequentially process each of the objects as a respective candidate for segmentation into a respective current one of

the object clusters in the series and, for each of the candidate objects, perform operations comprising

determining a candidate object interval separating the candidate object from an adjacent object in the sequence already segmented into the current object cluster, the candidate object interval being measured in the selected dimension of the context-related metadata,

compare the candidate object interval to a weighted measure of cluster extent for the current object cluster, the measure of cluster extent corresponding to a current distance spanned by all the objects in the current object cluster measured in the selected dimension of the context-related metadata, and

comparing the candidate object interval to a weighted measure of cluster object density for the current object cluster, the measure of object density corresponding to a measure of distribution of distances separating adjacent ones of the objects in the current object cluster measured in the selected dimension of the context-related metadata.

Claim 23 (original): A method of organizing a collection of objects, comprising:

segmenting objects from the collection into clusters;

extracting context-related meta data associated with the objects and parsable into multiple levels of a name hierarchy; and

assigning names to clusters based on the extracted context-related meta data corresponding to a level of the name hierarchy selected to distinguish segmented clusters from one another.

Claim 24 (original): The method of claim 23, wherein names are assigned to clusters based on the extracted context-related meta data corresponding to a highest level of the name hierarchy that distinguishes clusters from each other.

Claim 25 (original): The method of claim 23, wherein the context-related meta data corresponds to object generation times.

Claim 26 (original): The method of claim 23, wherein the context-related meta data corresponds to object generation locations.

Claim 27 (original): The method of claim 26, wherein the context-related meta data corresponds to recorded information relating to country, city, and state of object generation.

Claim 28 (original): The method of claim 23, wherein the context-related meta data corresponds to both object generation times and object generation locations.

Claim 29 (original): The method of claim 23, further comprising automatically naming objects in a given cluster based on the name assigned to the given cluster.

Claim 30 (original): The method of claim 29, wherein the objects in the given cluster are named automatically in accordance with a chronological ordering of the objects in the given cluster.

Claim 31 (original): The method of claim 29, further comprising storing objects in the given cluster in a tree structure organized by cluster and labeled in accordance with the assigned names.

Claim 32 (original): A system of organizing a collection of objects, comprising:

a segmentation engine operable to segment objects from the collection into clusters; and

a naming engine operable to extract context-related meta data associated with the objects and parsable into multiple levels of a name hierarchy, and assign names to each cluster based on the extracted context-related meta data corresponding to a level of the name hierarchy selected to distinguish segmented clusters from one another.

Claim 33 (previously presented): A method of organizing a collection of objects, comprising:

accessing a sequence of objects segmented into clusters each including multiple constituent objects arranged in a respective sequence in accordance with context-related meta data associated with the objects;

selecting for each object cluster at least two constituent objects representative of beginning and ending instances in the corresponding object sequence; and

in a user interface, graphically presenting the selected representative objects of each cluster without graphically presenting representations of unselected ones of the constituent objects of the clusters.

Claim 34 (previously presented): The method of claim 33, further comprising graphically presenting a selected one of the clusters as a stack of partially overlapping images representative of multiple objects in the selected cluster.

Claim 35 (previously presented): The method of claim 34, further comprising revealing an increased portion of a given one of the representative images in the stack in response to detection of a user-controlled display icon positioned over the given representative image.

Claim 36 (previously presented): The method of claim 33, wherein the presenting comprises presenting the selected representative objects with the spacing between adjacent ones of the selected representative objects in the same cluster smaller than the spacing between adjacent ones of the selected representative objects in different clusters.

Claim 37 (original): The method of claim 33, further comprising merging objects of one cluster into an adjacent cluster in response to user input.

Claim 38 (original): The method of claim 37, wherein objects of one cluster are merged into an adjacent cluster in response to dragging and dropping of the objects to be merged.

Claim 39 (original): The method of claim 37, wherein the objects of the one cluster are merged into the adjacent cluster in response to user selection of an icon for merging the clusters.

Claim 40 (original): The method of claim 33, further comprising presenting a graphical representation of distributions of objects in the clusters.

Claim 41 (original): The method of claim 40, wherein a object distribution for a given cluster is presented as object instances plotted along an axis corresponding to a scaled representation of the context-related extent spanned by the given cluster.

Claim 42 (original): The method of claim 40, further comprising splitting a given cluster in response to user selection of a point in the representation of the object distribution presented for the given cluster.

Claim 43 (original): The method of claim 40, further comprising automatically splitting a given cluster into two or more clusters in response to user input.

Claim 44 (original): The method of claim 43, wherein the given cluster is automatically split into a user-selected number of sub-clusters.

Claim 45 (original): The method of claim 43, wherein the given cluster is automatically split based on relative sizes of intervals between successive objects in the given cluster.

Claim 46 (original): The method of claim 33, wherein the context-related meta data corresponds to object generation times.

Claim 47 (original): The method of claim 33, wherein the context-related meta data corresponds to object generation locations.

Claim 48 (original: The method of claim 33, wherein the segmented sequence includes objects of the following types: text, audio, graphics, still images, video, and business events.

Claim 49 (original): The method of claim 33, further comprising graphically presenting at least one link to an object of a cluster arranged in a sequence in accordance with time-related meta data in a calendar format.

Claim 50 (original): The method of claim 33, further comprising graphically presenting at least one link to an object of a cluster arranged in a sequence in accordance with location-related meta data in a map format.

Claim 51 (previously presented): A system of organizing a collection of objects, comprising a user interface layout engine operable to perform operations comprising:

accessing a sequence of objects from the collection segmented into clusters each including multiple objects arranged in a respective sequence in accordance with context-related meta data associated with the objects;

selecting for each object cluster at least two constituent objects representative of beginning and ending instances in the corresponding object sequence; and

in a user interface, graphically presenting the selected representative objects of each cluster on a screen without graphically presenting representations of unselected ones of the constituent objects of the clusters, wherein the user interface layout engine presents the selected representative objects with the spacing between adjacent ones of the selected representative objects in the same cluster smaller than the spacing between adjacent ones of the selected representative objects in different clusters.